

University of Illinois

# Engineers' Day

April 4, 1924

L. S.



## PROGRAM OF EVENTS

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- 2:50 P.M. Classes in the College of Engineering dismissed.  
3:00 P.M. Parade starting at Burrill Avenue and Green Street.  
3:45 P.M. Engineering Assembly in the Auditorium.  
6:00 P.M. Engineering Faculty Dinner.  
9:00 P.M. Engineers' Dance.
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### JOHN SMEATON

Among the engineers who have contributed notably to the profession of engineering few have equaled the man whose bicentennial is celebrated today, John Smeaton.

Smeaton was born in Austhorpe Lodge, near Leeds, June 8, 1724. He attended the public schools of Leeds until the age of 16 when he entered the office of his father, an attorney, to study law. He had already displayed unusual mechanical ability as a boy, hence it is not surprising that he became dissatisfied with his legal studies and requested his father to allow him to enter the engineering profession. He became an apprentice to an instrument maker and later set up for himself at the age of 26. He was perhaps the first to test water wheels for efficiency. Eleven years after setting out in business, he wrote a paper on "An experimental inquiry concerning the native powers of water and wind to turn mills and other machines," which won the Copley medal of the Royal Society. At the age of 35, he was commissioned to rebuild the Eddystone lighthouse. He undertook this commission with enthusiasm and great energy. He spent much time studying materials. Most of the winter, when he could not go to the site, he spent in experimenting with lime mortars. It was in these experiments that he discovered the hydraulic cement which was later (1824) patented as portland cement. By such careful scientific study of his problem, he was able to build the lighthouse which stands to this day, a monument to his fidelity and skill.

Smeaton became recognized as the foremost engineer of the time, being consulted extensively on harbor, hydraulic, canal, and bridge work. He was probably the first to undertake drainage of swamp land (fens) on an extensive scale and to control streams scientifically. He was employed extensively in the design of water-wheels, pumps, and other machines. His advice at one time saved the famous London bridge from being swept away. He built numerous arch bridges, many of which are still standing.

He intended to write a complete series of books describing his engineering achievements but his death October 28, 1792, limited his writing to the "Narrative of the Building of the Eddystone Lighthouse."

## Program

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### The Engineering Assembly

*The University Auditorium*

3:45 o'clock

DEAN MILO SMITH KETCHUM, *Presiding*

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### Address, "The Future Status of the Engineer"

Dr. IRA OSBORN BAKER

*Professor of Civil Engineering, Emeritus*